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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,095	06/25/2003	Matthias Krull	2000DE441/D	4206

25255	7590	11/28/2007
CLARIANT CORPORATION		
INTELLECTUAL PROPERTY DEPARTMENT		
4000 MONROE ROAD		
CHARLOTTE, NC 28205		

EXAMINER	
TOOMER, CEPHIA D	

ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/606,095	Applicant(s) KRULL ET AL.	
	Examiner Cephia D. Toomer	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 12 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7 and 13-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7 and 13-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 12, 2007 has been entered.
2. This office action is in response to the amendment filed September 12, 2007 in which claims 7, 13-16 were amended and claim 18 was added.
3. The 112 rejection is withdrawn in view of Applicant canceling claims 11 and 12.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11001692 in view of Krull (US 5,391,632).

JP teaches a low sulfur middle distillate fuel oil comprising less than 0.2 wt % sulfur. The fuel oil contains from 0.001-0.5 wt % of a C₈-C₃₀ fatty acid mixture which contains unsaturated fatty acids having a single double bond and a fatty acid containing two double bonds and other additives such as flow improvers. The acids are used in a ratio of 1:3 to 15:1 (see claim 1). At paragraphs 16 and 17, JP teaches adding saturated fatty acids and resin acids to the mixture. JP teaches the use of nitrogen-containing compounds (amides/salts) that function as cold temperature fluidity improvers (paraffin dispersants) at a ratio of 1:10-5:1 (see paragraphs 0019-0020). The fluidity improvers also include copolymers such as ethylene vinyl esters. JP also teaches that the fuel additive may be prepared as a concentrate containing 20 to 80% by weight solvent (see paragraph 24). JP teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, JP differs from the claims in that it does not specifically teach the claimed polar nitrogen-containing compound. However, Krull teaches this difference.

Krull teaches terpolymers based on unsaturated dicarboxylic anhydrides, bivalent compounds and polyoxyalkylene ethers. These terpolymers are the same as those of the instant claims (see col. 2, lines 34-68; col. 3, lines 1-68; col. 4, lines 1-35). Krull teaches that the terpolymers are used as paraffin inhibitors in crude oils and petroleum products such as middle distillates (see col. 9, lines 19-26). The terpolymers are used in an amount from 10-10,000 ppm (see col. 9, lines 32-35).

It would have been obvious to one of ordinary skill in the art to add the paraffin dispersant of Krull with those of JP because Krull teaches that combining the nitrogen-containing compounds of his invention with other cold temperature fluidity improvers, such as those set forth in JP result in paraffin crystals that precipitate on cooling and remaining dispersed (see col. 2, lines 21-32; col. 9, lines 44-65).

In the second aspect, JP differs from the claims in that it does not specifically teach the iodine number of the fatty acid mixture. However, since the fuel additive of JP comprises a major amount of unsaturated acids it would be reasonable to expect that the iodine number of the fatty acid mixture would be at least 40 g of I/100g, absent evidence to the contrary.

With respect to claim 18, it would be reasonable to expect that such properties are present in the composition upon admixture of the fatty acid mix and cold flow improvers, especially in view of Krull teaching that his cold flow improver disperses paraffins at temperatures between -13 and -20 C (see col. 11, lines 17-25).

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

Applicant's arguments have been considered but are not deemed persuasive.

JP teaches that the fatty acid mixture of its invention may be combined with a cold flow improver. Applicant's data show that the fatty acid mixture in combination with the flow improvers of JP produce results that are not as desirable as those wherein the fatty acid is combined with the polar nitrogen-containing compound. Applicant's data

bolsters the examiner's position because Krull teaches that when his nitrogen-containing compound is combined with cold flow improvers such as those taught by JP that improved cold flow properties are obtained. Therefore, the skilled artisan having JP and Krull before him/her would be motivated to combine the references in order to obtain a cold flow additive that would impart lubricity properties as well as improved cold flow properties to a middle distillate fuel composition.

5. Applicant argues that there is no disclosure in JP that does not include middle distillates and that JP is silent on the use of any of applicant's specific terpolymers.

6. The examiner agrees. However, JP teaches at paragraph 25 that in the case of compounding low temperature flow improving agents, it is preferable to dissolve the fatty acid mixtures and low temperature flow improves in a solvent.

7. While JP is silent with respect to the claimed cold flow improvers, JP teaches the well known cold flow improvers may be used. This teaching suggests that the skilled artisan would recognize that conventional cold flow improvers not recited in JP may be used.

8. Applicant argues that JP does not teach the claimed iodine numbers.

9. Since the fatty and mixture of JP contains a major amount of unsaturated acids, it would be reasonable to expect that the iodine number of the fatty acid mixture would be at least 40 g of I/100g.

10. Applicant argues that no where in Krull or the JP reference is fatty acids disclosed as paraffin inhibitors. Applicant argues that given this fact no one skilled in the art would be motivated to combine fatty acids with paraffin inhibiting terpolymers.

11. The examiner respectfully disagrees. JP clearly sets forth that the fatty acids are fiction modifiers that may be combined with conventional cold flow improvers. Krull teaches that when his cold flow improvers are combined with other conventional improvers that improved flow properties are obtained.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

12. Applicant states that a declaration was attached to the response of September 12, 2007. However, no such declaration is of record.

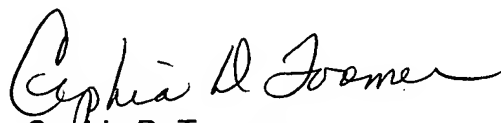
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cepha D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Cephia D. Toomer
Primary Examiner
Art Unit 1797

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